

known of Linacre's career, and then sets out the subject of his remarks as medical humanist and grammarian, and closes with the Linacre foundations themselves. On a theme so well worn no very striking facts can be expected, but we have a very readable presentation of the man himself, as shown in his works and benefactions to his own university and to Cambridge. The plates in half-tone are of the Holbein-like portrait attributed to Quentin Matsys, a copy of a drawing in the British Museum, and facsimiles of title-pages of nine of his printed works.

B. D. J.

Lands Beyond the Channel. An Elementary Study in Geography. By H. J. Mackinder. Pp. xii+276. (London: George Philip and Son, Ltd., 1908.) Price 1s. 9d.

If geography could be learnt satisfactorily by reading alone it would be difficult to find a more suitable and attractive reading book than this. The Mediterranean Sea and Europe are described by the aid of interesting text and numerous maps and pictures. Historical paragraphs emphasising the inter-relation of history and geography are frequent, and the pupil who reads the volume intelligently will have accumulated a great deal of curious and useful information. But for the right understanding of geography as a science this descriptive matter must be supplemented by carefully graduated practical exercises, judiciously designed to lead the learner to a knowledge of the foundations upon which geographical science rests.

LETTERS TO THE EDITOR.

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts intended for this or any other part of NATURE. No notice is taken of anonymous communications.]

Earthquakes and John Wesley.

THE year 1755, the year of the great Lisbon earthquake, is so remarkable for its seismic activity that any facts relative to earthquakes in that year have their value, and I have recently stumbled on some information from a rather improbable source, viz. the journal of John Wesley.

On Monday, June 8, 1755, he was at Osmotherley, in Yorkshire, and made inquiries of eye- and ear-witnesses of the occurrences of March 25 preceding, and he describes what he heard of noises, motions of the earth, falling and splitting of rocks, and other seismic phenomena which occurred in that neighbourhood, and especially at Whiston Cliffs, about five miles from Thirsk. These phenomena, which commenced on March 25, seem to have gone on, if I read Wesley's statement aright, with intervals to the end of May. Wesley was so much interested in what he heard that on June 1 he made a personal visit to the chief scene of the desolation, and he gives a long and interesting account of what he saw in the vicinity of the Whiston Cliffs. He then proceeds to discuss the cause of what he had seen; if the cause were natural, it must, he says, have been fire, water, or air. He discusses and dismisses each of these as the possible cause, and concludes that it was the direct intervention of God at a spot near where the Hamilton races were held, "wrought in such a manner that many might see it 'and fear.'" In Mallet's catalogue of earthquakes (British Association reports for 1852) disturbances are mentioned at York on March 25 and 27 on the authority

of *Kant. Géol. Phys.*, t. iv., p. 314, but no further mention is made of the facts stated by Wesley.

I may further add that Wesley also mentions and describes earthquakes in London on February 8, 1750, and March 8, 1750, neither of which is mentioned in Mallet's catalogue.

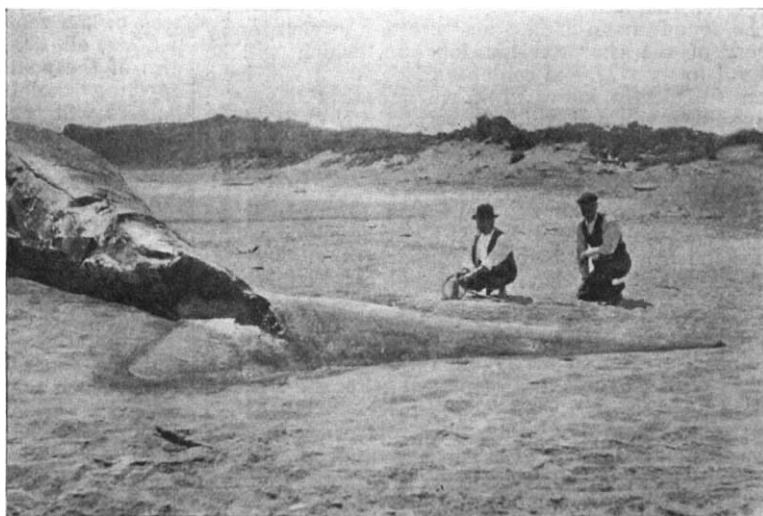
The passages in which Wesley describes these several seismic facts are too long for citation in your columns, but appear to me well worth reading alike by the seismologist and by the student of Wesley's character. They show an inquisitive mind interested in natural facts, but with a strong tendency to find immediate and direct moral teaching as their final cause.

EDWARD FRY.

Failand House, Failand, near Bristol, November 17.

Large Blue Whales.

I HAVE just acquired for the Canterbury Museum the skeleton of a huge blue whale (*Balaenoptera sibbaldii*).



Tail of a Blue Whale stranded at Okarito.

The whale was cast on to the beach at Okarito, on the west coast of the South Island of New Zealand, early this year, and measured 87 feet in length.

My statement that the Okarito whale is among the largest known has been freely challenged in the local Press. The "Ostend whale," the length of which is rendered as 102 feet, has been instanced, but Beddard ("A Book of Whales," p. 155) evidently discredits the record as to size.

A Danish correspondent refers to the skeleton of a whale 150 feet in length, killed off the Orkneys and preserved in the Museum of Northern Antiquities, Copenhagen. Others state that specimens larger than ours may be seen in the British, Paris, and American museums.

I have naturally sought information as to the length of skeletons of great whales preserved in museums, but have been unable to obtain satisfactory data.

I shall be pleased, therefore, if directors of museums possessing the skeletons of large whales will kindly communicate with me direct, or, as the matter is one of general interest, through the medium of NATURE.

EDGAR R. WAITE.

Christchurch, New Zealand, October 8.

Potato Black Scab.

REFERRING to Prof. Johnson's letter in NATURE of November 19 (p. 67) on the black scab or wart disease of the potato, I should like to emphasise the importance of investigating in the open as well as in the laboratory the conditions determining the germination of the resting spores.

Like Prof. Johnson, I have found no difficulty in germinating them in potato-juice at the ordinary laboratory temperature. At the commencement of August they had liberated their contents within four days in a hanging-drop culture. I was not so fortunate as to observe the actual escape of the zoospores, but this stage seems to be followed very rapidly by the amoeboid stage, in which condition the organism moves about very actively for some days. In the hanging drop it then becomes passive, withdrawing its pseudopodia and assuming a spherical shape.

In both the ciliate and the amoeboid condition it must be very sensitive to fungicides, and it is therefore important to ascertain at what period this susceptible stage is reached in nature, as this will determine the best time for the application of gas lime or other dressing to the soil. Now that so many observers are directing their attention to this fungus, it is to be hoped that we shall soon discover a method of checking the further advance of this destructive parasite.

F. E. WEISS.

The University, Manchester, November 21.

Mercury Bubbles.

I HAVE on several occasions noticed the beautiful bubbles described by Mr. Wright and Sir William Crookes (pp. 8 and 37). On each occasion I was purifying mercury in the following way. I half filled a rather large Woulfe's bottle with mercury and poured on to it weak nitric acid. Then, in order to keep the whole in a state of agitation, I carried a tube through one neck to the bottom of the bottle and attached a short tube to the other neck connected with a filter pump, so that air was continuously drawn through the two liquids. I have never noticed bubbles for the first hour or two, but afterwards they are formed continuously, and float for a second or so on the top of the acid before bursting. Some were certainly quite 22 mm. in diameter. From their delay in appearing I gather either that they are only formed in mercury which is fairly pure, or that the nitric acid has to be fairly well saturated with metal.

A. T. HARE.

November 23.

WITH reference to Mr. J. G. Ernest Wright's letter in NATURE of November 5, I may be permitted to mention that under the above heading I published a few observations in NATURE of July 2, 1903. Like Mr. Wright, I made an approximate estimate of the thickness of the mercurial pellicle, but the bubbles which were produced in Mr. Wright's experiment seem to have had a slightly greater diameter than any of those which I observed.

HENRY H. DIXON.

School of Botany, Trinity College, Dublin.

An Alga growing on Fish.

IN NATURE of April 18, 1907, vol. lxxv., p. 599, it is noticed that Mr. A. D. Hardy found a chlorophyte, *Myxonema tenue*, ordinarily an inhabitant of rapid streams, also growing luxuriantly on some goldfish in a small pond, thus obtaining water friction necessary to its own well-being.

To some of your readers it might prove of interest to record a similar occurrence in Japan. On October 11, 1902, while I was rambling about the Asso marsh, not far from this town, my eye was accidentally caught by a small fry of *medaka* (lit., eyes-jutting, *Haplochilus latipes*, Schleg.), a fish proverbial for its diminutiveness. In a shallow bog-pool, only some 2-4 feet across, they looked very unhealthy, and were swimming in an unsteady, fidgety manner, infested with what appeared to be *Saprolegnia*, but greenish in hue. On a closer examination, every one of them turned out to have under or beside its abdomen a horny protuberance giving rise to delicate tufts of an alga up to 1 cm. long. This discovery I made mention of in a letter sent some time after to Prof. G. S. West, then at Cirencester. This plantlet, I have no doubt, belongs to the genus *Myxonema*, but the imperfection of

my microscope, as well as the want of reference books, prevents me from ascertaining what species it really is.

By the accompanying parcel post I am sending you five *medaka*-fish with the algal growth *in situ*, and two slides with the latter; also one slide with a large, broadly shuttle-shaped and much constricted desmid found singly suspended among the *Myxonema*, in the hope that some phycologist will kindly identify them for me.

KUMAGUSU MINAKATA.

Tanabe, Kii, Japan, September 20.

THE alga attached to the *medaka* fish is *Myxonema tenue*, Rabenh. The desmid is a species of *Euastrum*, too imperfect to determine specifically. A few fragments of a diatom belonging to the genus *Gomphonema* are also present.

GEO. MASSEE.

A Disclaimer.

I WISH to make a disclaimer of responsibility with reference to the journal *Ion*, on the cover of the first number of which my name figures in the capacity of an editor. It is true that at one time, acting on certain representations, I accepted an invitation to superintend the department of the journal dealing with radio-activity, as referred to in the concluding paragraph of the editorial on p. 1 of the first number. Neither the journal itself, nor its cover, however, were submitted to me for my sanction and approval before publication. The appearance of my name on the cover in the capacity of an editor has not been authorised by me, and I accept no responsibility with regard either to the editing or publishing of the journal.

With reference to the department of the journal dealing with radio-activity, I would point out that the first number of the journal contains several articles and reports dealing with the subject of radio-activity, but with the exception of two articles contributed by myself and one report, proofs of which passed through my hands, these articles and reports were not seen by me before publication. The first intimation I had that they were to appear was derived from the advertisement of the journal and its contents in NATURE of November 12, p. xxi. I therefore do not accept any responsibility for that section of the journal I am stated to have the care of. Finally, I wish to say I have now withdrawn from all connection with the journal.

FREDERICK SODDY.

Leonid Meteors.

THE nights of November 13-15 appear to have been generally overcast, and to have furnished no opportunities for watching the display of meteors. But November 16 was clear at some places, and Mr. Ellison Hawks, of Leeds, counted eighty-seven meteors between 10h. and 14h., of which twenty-six appeared to be certainly Leonids, while many others pursued nearly same paths, and probably belonged to same stream. Large meteors were recorded at 12h. 26m. and 13h. 12m. shooting from Taurus and Aries towards the planet Saturn.

At Whitby an observer noticed several conspicuous meteors in the morning hours of November 17. At 6.32 a.m. there was a splendid one descending almost vertically through Orion from the direction of Leo, and there was no doubt that the great November stream returned, though perhaps not richly as in some years nearer the perihelion returns of the parent comet. It is to be hoped that other observers will send their reports of the shower.

The night following Monday, November 16, when the Leonid meteors were seen at Leeds and Whitby as described, was decidedly late for the display. The present year being leap year, it is probable that the shower was at its best on the mornings of November 15 and 16, but no accounts of its appearance at those times have reached me owing to the overcast and starless condition of the visible firmament reported by various observers.

W. F. DENNING.